



Biological & Biomedical Literatures From NCBI

Literature for biological & biomedical sciences from PubMed, PMC, and Books databases

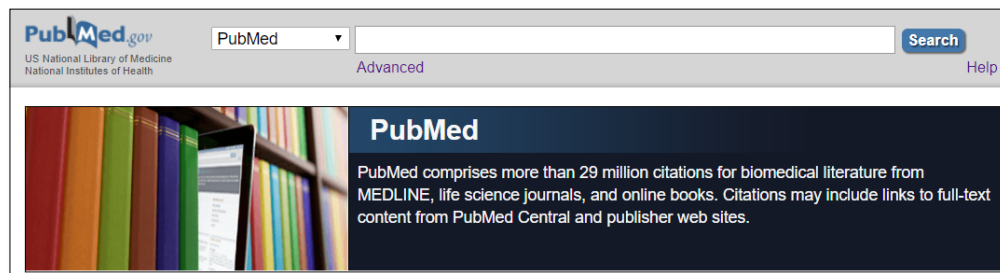
<https://www.ncbi.nlm.nih.gov/>

National Center for Biotechnology Information • National Library of Medicine • National Institutes of Health • Department of Health and Human Services

PubMed, **PubMed Central**, and **Books** are the three important biological and biomedical literature databases NCBI maintains and provides to the public free of charge through its web site (<https://www.ncbi.nlm.nih.gov/>).

PubMed®

PubMed is a database of citation indexing for biomedical/biological research literature. Currently, PubMed contains close to 30 million entries. A subset of these records have links to free full-text articles through PMC and/or publishers.



It provides bibliographic information from MEDLINE®, as well as the following:

- Out-of-scope citations from general science and chemistry journals whose life science articles are indexed for MEDLINE
- Citations that precede the date a journal was selected for MEDLINE indexing
- Citations from additional life science journals that submit full-text content to PubMed Central (PMC) and receive a qualitative review by NLM
- Abstracts of certain book entries from NCBI Bookshelf

PubMed's homepage (<https://www.ncbi.nlm.nih.gov/pubmed/>) using has a text box enabling you to type in query terms to retrieve relevant citations. Under the text box is a link to the Advanced page which contains a Query Builder to assist with the creation of complex searches. Search results can be displayed and downloaded in Summary, Abstract, Medline, or XML formats. The complete set of PubMed records can be downloaded from: <https://ftp.ncbi.nlm.nih.gov/pubmed/baseline/>. Alternatively, the NCBI Application programming interface (API), Entrez Programming Utilities (E-Utils), enables scripted access to PubMed data. Learn more at: <https://www.ncbi.nlm.nih.gov/books/NBK25501>.

A new interface, named PubMed Labs, is available at <https://www.ncbi.nlm.nih.gov/labs/pubmed/> for the public to test. It has a streamlined search function along with other experimental features. Please try it out and send us your feedback.

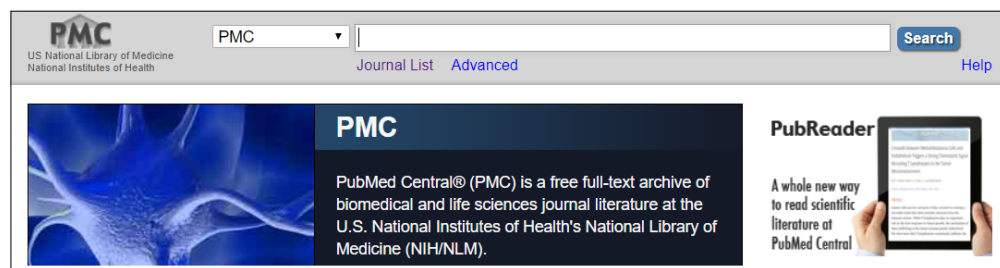
PubMed Central®

PubMed Central (PMC) is a free, full-text archive of biomedical and life science journal articles. In keeping with NLM's legislative mandate to collect and preserve biomedical literature, PMC serves as a digital counterpart to NLM's extensive print journal collection. Since its inception in 2000, PMC has grown to contain more than 5 million full-text records, spanning several centuries of biomedical and life science research (from the late 1700s to the present).

Published manuscripts are added to the PMC archive by:

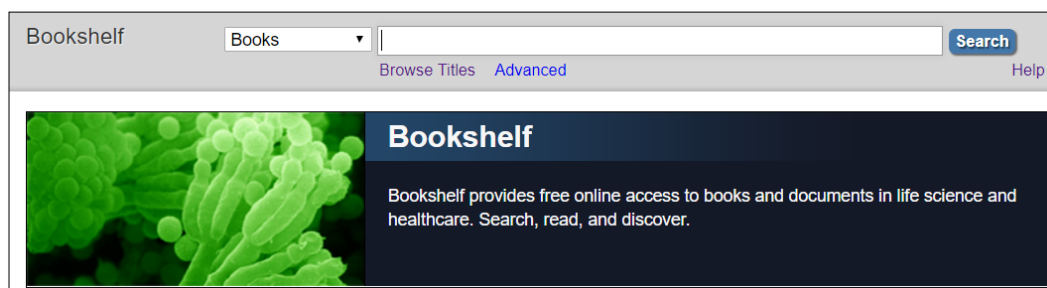
- NIH-funded authors (through NIHMS as required by NIH Public Access, <https://publicaccess.nih.gov/>)
- PMC-participating publishers

Access to PMC content can be from corresponding PubMed record pages or by searching directly at the PMC homepage (<https://www.ncbi.nlm.nih.gov/pmc/>). Retrieved records can be displayed as individual full-text articles or accessed in PDF format. The PubReader is another display format for easier reading. While PMC is also accessible through the E-Utils APIs, FTP download of full articles is restricted to a group of records called the "PMC Open Access Subset".



Books

The NCBI Books database, also known as the Bookshelf, is a searchable collection of online biological and biomedical textbooks, books, reports and documents and monographs. The Books database currently contains over 1,000 titles.



Two helpful NCBI references are housed in the Books database:

- NCBI Help Manual: <https://www.ncbi.nlm.nih.gov/books/NBK3831/>
- NCBI Handbook, 2nd Ed.: <https://www.ncbi.nlm.nih.gov/books/NBK143764/>

The Books database (<https://www.ncbi.nlm.nih.gov/books/>) has a text box enabling searching the entire bookshelf content. Alternatively, a search can be performed within a particular title to allow focused retrieval and display of the relevant sections. Sections retrieved may be viewable in e-reader format, or downloadable as a PDF. However, some commercial content has copyright restrictions for access, thus does not allow for page-by-page browsing or downloading as a PDF file.

The Books Browser (right) provides a quick and easy way to down of the list to locate and access the content for a title of interest.

While the Books database is searchable using the eSearch function of the NCBI E-Utils API and metadata information for records is available through eSummary, full-text retrieval by eFetch is not available.

Help Document, Technical Assistance

Extensive online help documents are available for PubMed, PMC, and Books on the Bookshelf:

- PubMed help <https://www.ncbi.nlm.nih.gov/books/NBK3827/>
- PMC Help <https://www.ncbi.nlm.nih.gov/books/NBK3833/>
- Books help <https://www.ncbi.nlm.nih.gov/books/NBK3833/>

Video tutorials for how to use the PubMed and Books interfaces are available from NCBI's YouTube channel:

- PubMed: <https://www.youtube.com/user/NCBINLM/search?query=pubmed>
- Books: <https://www.youtube.com/user/NCBINLM/search?query=books>

Please send your questions, comments, and feedback to info@ncbi.nlm.nih.gov